

Fourth National Conference on Access Management

Georgia Study Confirms the Continuing Safety Advantage of Raised Medians Over Two-Way Left-Turn Lanes

August 14, 2000

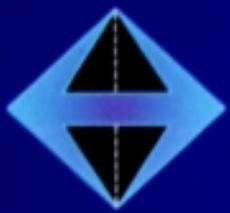
Fourth National Conference on Access Management

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Access Management

Regulation of Spacing and Design of:



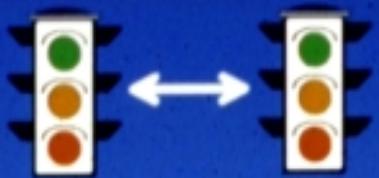
Driveways



Medians



Median Openings



Traffic Signals



Freeway
Interchanges



Thank you, Florida DOT, for this great graphic!

Raised Medians vs. TWLTL

TYPICAL FOUR LANE SECTIONS



Example Five-Lane TWLTL Section



Example Seven-Lane TWLTL Section



Older Design of Depressed Grass Median

“Raised Median” includes any non-traversable design



Modern Rural Depressed Grass Median



Median Barrier on an Urban Expressway



Raised Median on Jimmy Carter Blvd.



Retrofitted Raised Medians May be Tight



Median Noses Are Sometimes Struck



Atlanta's Memorial Drive



Memorial Drive - Atlanta Area

■ ***Data***

- 4.3 Miles
- 6 Lanes
- 40,000 to 48,000 Vehicles per Day
- Speed Limit 45 MPH

■ ***Before***

- Two way left turn Lane

■ ***After***

- Raised Median (14 ft width)
- 14 Median Openings Provided
- 7 public streets were not given median openings
- U turns allowed at all openings but one (r-t-o-r restrictions)

Raised Median on Memorial Drive



Dramatic Before/After Results

- In the year after completion, the project prevented about 300 crashes and 150 injuries.
- There was a 37% drop in total crash rate and a 48% drop in the injury rate.

Dramatic Before/After Results

- **Left-turn crashes between intersections were virtually eliminated. All 14 median crossovers (at 10 major public-road intersections and four significant private driveways) were signalized.**
- **Intersection crashes dropped because of high-type geometrics, with double left-turn lanes and U-turn capabilities, and because 7 intersections became right into and right out of the cross streets.**

Dramatic Before/After Results

The raised median reduced crashes and injuries on Memorial Drive because:

- Conflict points were reduced in number**
- Conflict areas were reduced in size**
- Pedestrians found refuge while crossing**
- Mid-block crashes dropped because of the elimination of left-turns in and left turns out**
- Left turns were eliminated into and out of 7 public roads and many driveways**

Dramatic Before/After Results

After 10 years, there has still not occurred the first fatality, either motorist or pedestrian.

Dramatic Before/After Results

Memorial Drive Study



TWLTL (BEFORE)

Raised Median (AFTER)

SOURCE: Squires & Parsonson, 1993



Lessons From Memorial Drive

- Importance of robust public dialogue
- Interparcel access should be encouraged
 - joint driveways
 - shared parking
 - rear alleyways
- Sidewalk improvements are important

Right In / Right Out at Restaurant



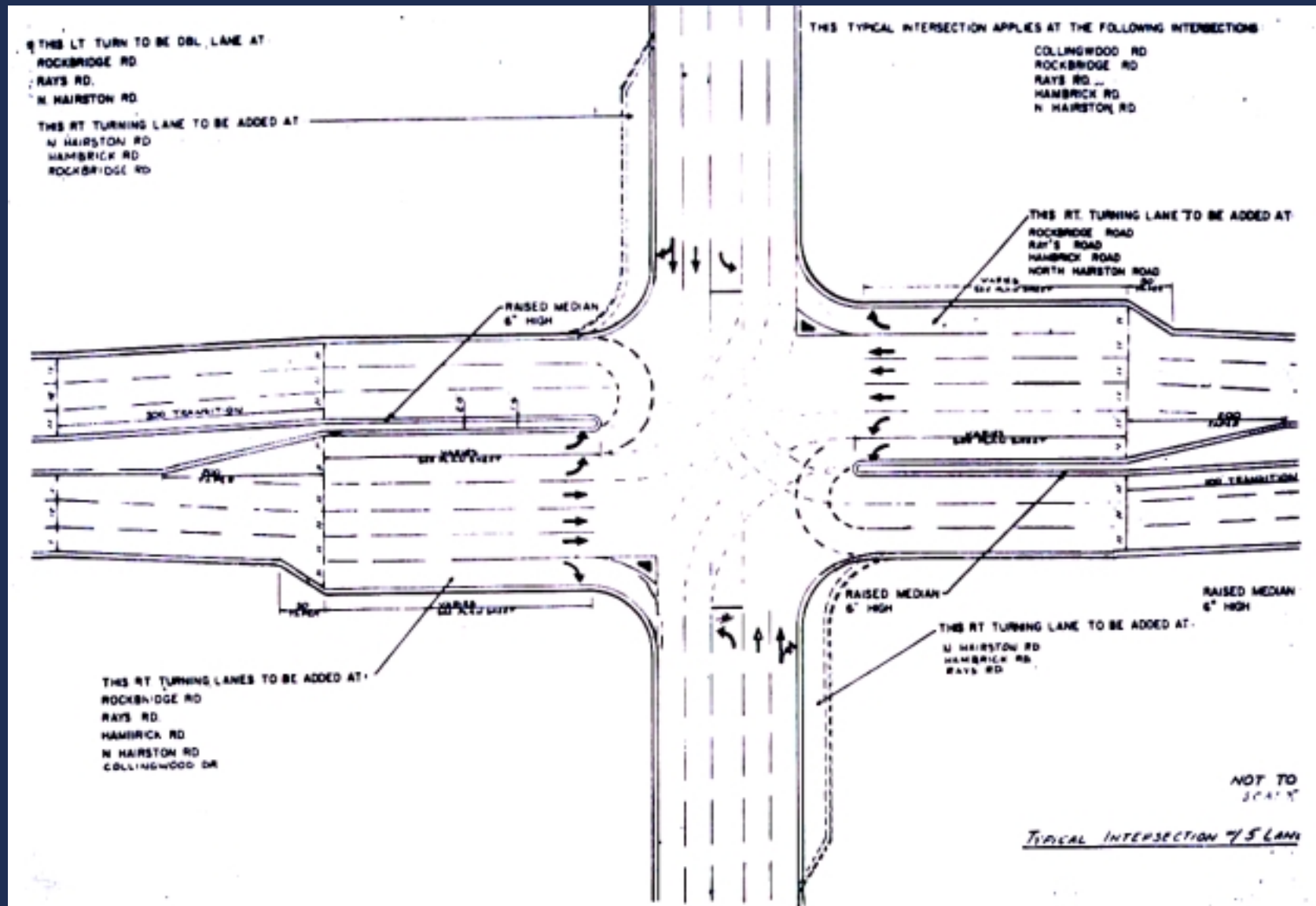
Right In / Right Out at Public Street



U Turns Encouraged



High-Type Geometrics on Memorial Dr.



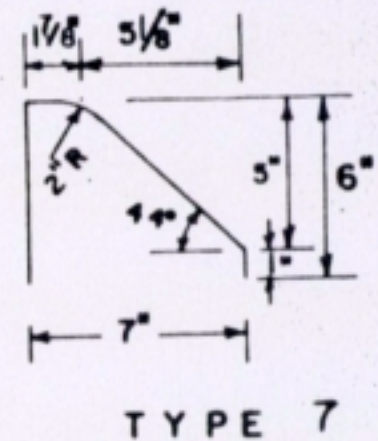
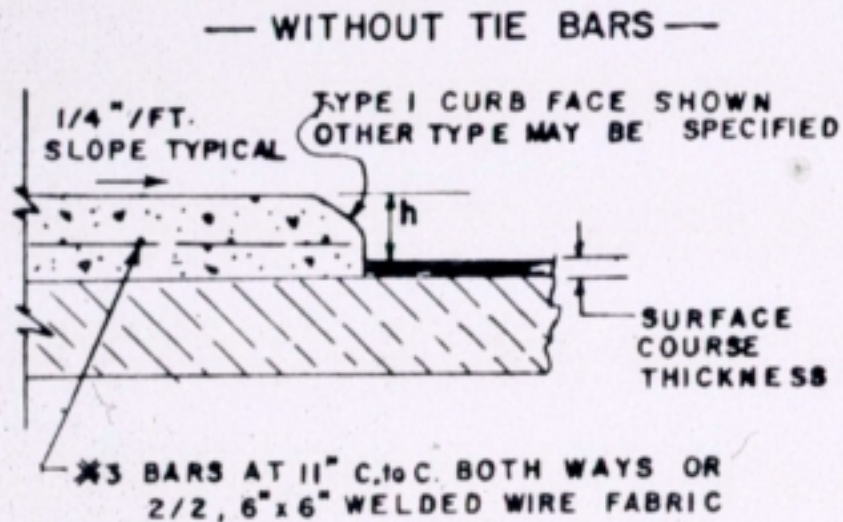
Right Turn on Red Prohibited



Sloping Curb Face for Two Reasons



AASHTO's Sloping Curb Face



Sidewalks, Interparcel Access Lacking



No Interparcel Access



Raised Median in the News



Kimberly Smith/Staff

The median on Memorial Drive, here dividing a westbound stretch of the road toward Stone Mountain, has been blamed for

forcing merchants to close or relocate their businesses since the concrete strip was installed as a safety measure in July.

Up against the 6-inch wall

Median saves lives, costs customers

LEAVING MEMORIAL DRIVE:

Merchants say the concrete strip built to reduce accidents has made their businesses inaccessible, forcing them to close or relocate.

By Katie Long
Staff writer

Nine months after workers poured a 4.3-mile slab of concrete down the center of Memorial Drive, transportation officials say the median is saving drivers.

But merchants along the strip say it's killing their businesses. The Blockbuster Video near Memorial College Avenue is gone. So is the Ace Hardware Workbench across the street from Memorial

Bend shopping center. A Pike Nursery moved a couple of blocks east and off Memorial Drive onto Rays Road.

Dozens of stores and shops along the DeKalb County stretch from Interstate 285 to Goldsmith Road have closed or moved to more accessible locations since the 6-inch-high concrete wall went up in late July.

"Since the median has gone in, it's been very difficult to lease any property along there, and all business is dropping off," said a real estate agent who handles property along Memorial Drive.

"For a destination-type place like Hooters [restaurant], it's OK," said the agent, who asked not to be identified.



Kimberly Smith/Staff

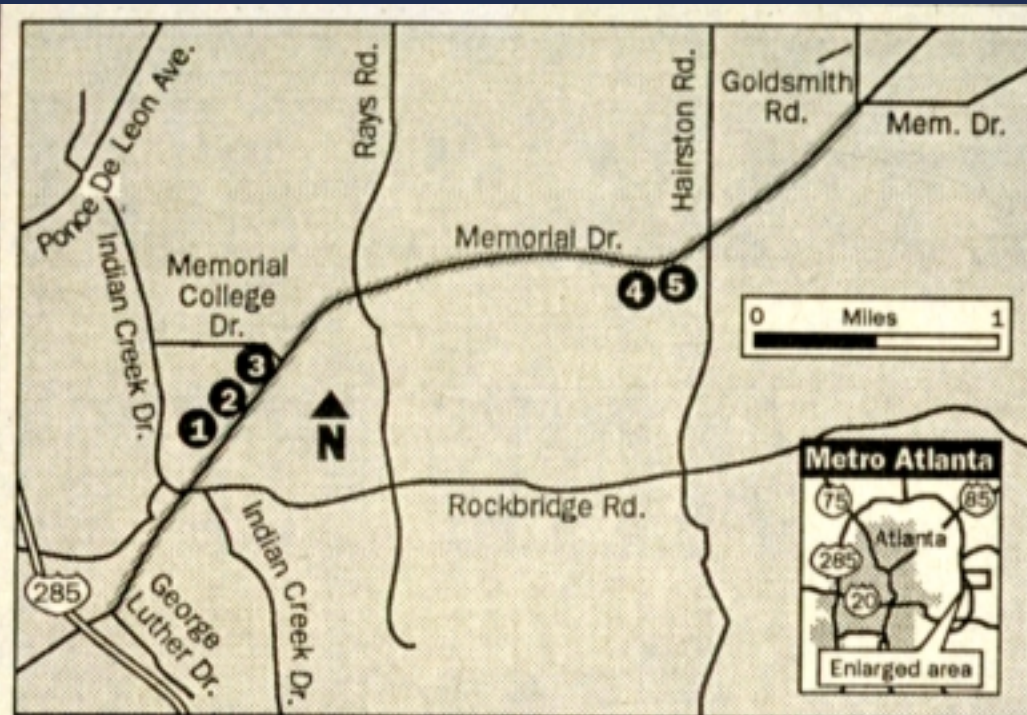
Merchant Dave Cardwell says the Memorial Drive median ruined his business.

Please see **MEDIAN, B10** ►

Restaurant Goes Out of Business



Cause and Effect? Or Coincidence?



Shut down on Memorial

Here are some of the businesses that have closed or moved since a 4.3-mile median was built last year on Memorial Drive in DeKalb County.

1. Closed: Lube-o-matic, 4884 Memorial
2. Closed: Tile City, 4890 Memorial
3. Closed: Blockbuster Video, 5148 Memorial
4. Closed: Ace Hardware Workbench, 5235 Memorial
5. Moved: Pike Nursery, 5055 Memorial Drive

Sign of the Times on Memorial Dr.



Raised Medians Make the Papers

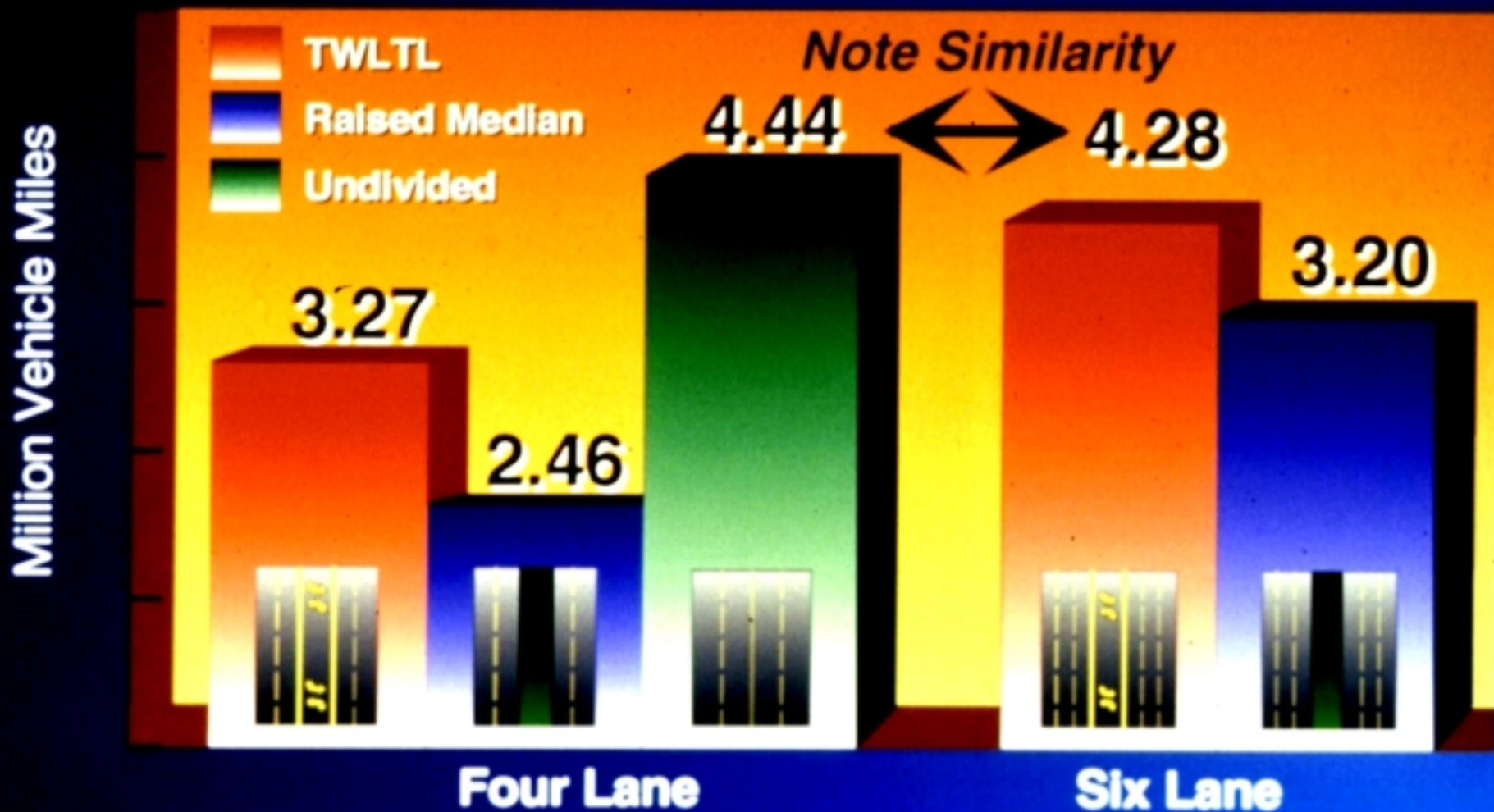


KIMBERLY SMITH / Staff

The Memorial Drive median has hurt business, merchants say, but a new study shows the divider has dramatically cut accidents and injuries along the busy highway.

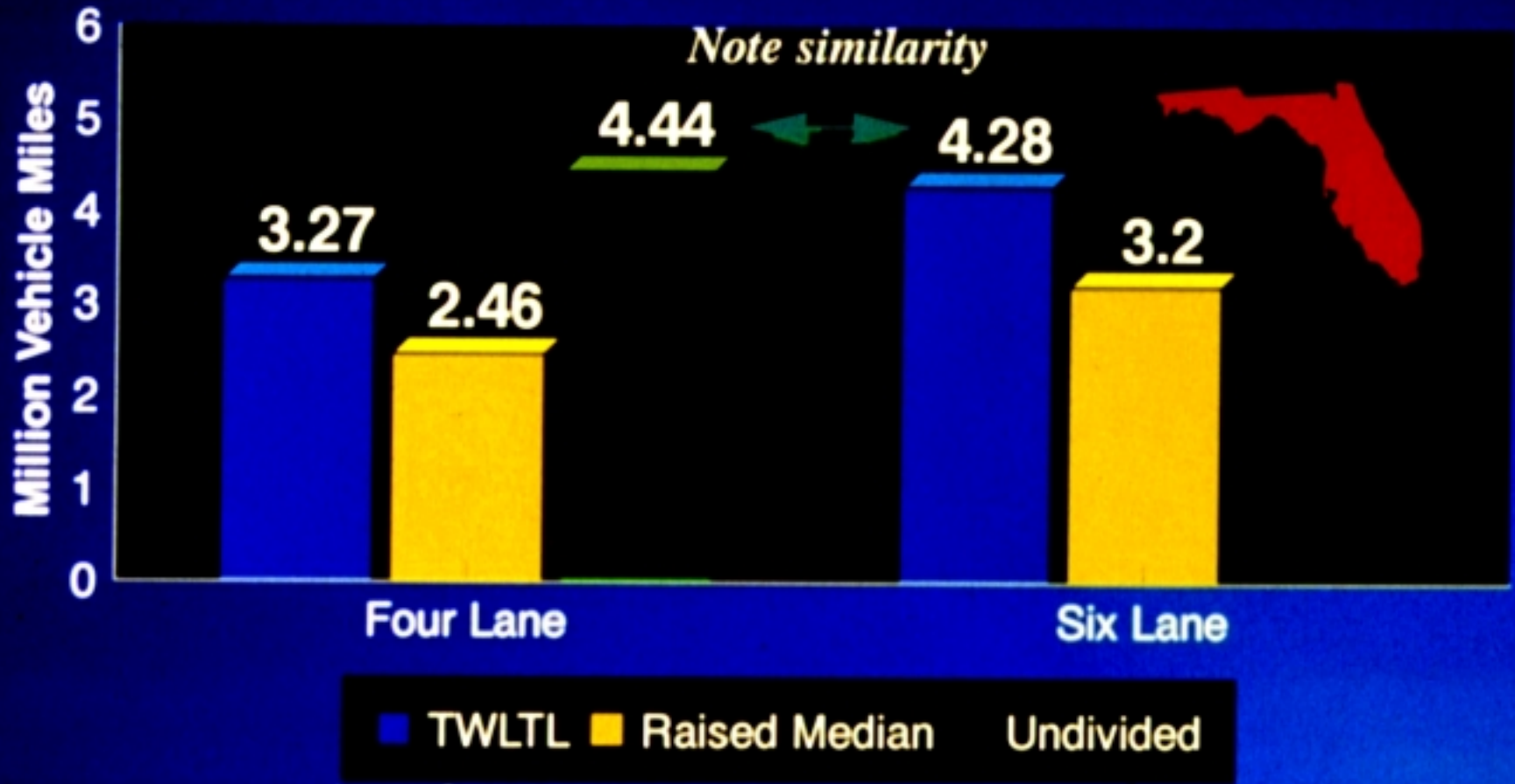
Like it or not, median
cuts rate of accidents

Crash Rates for Median Treatments



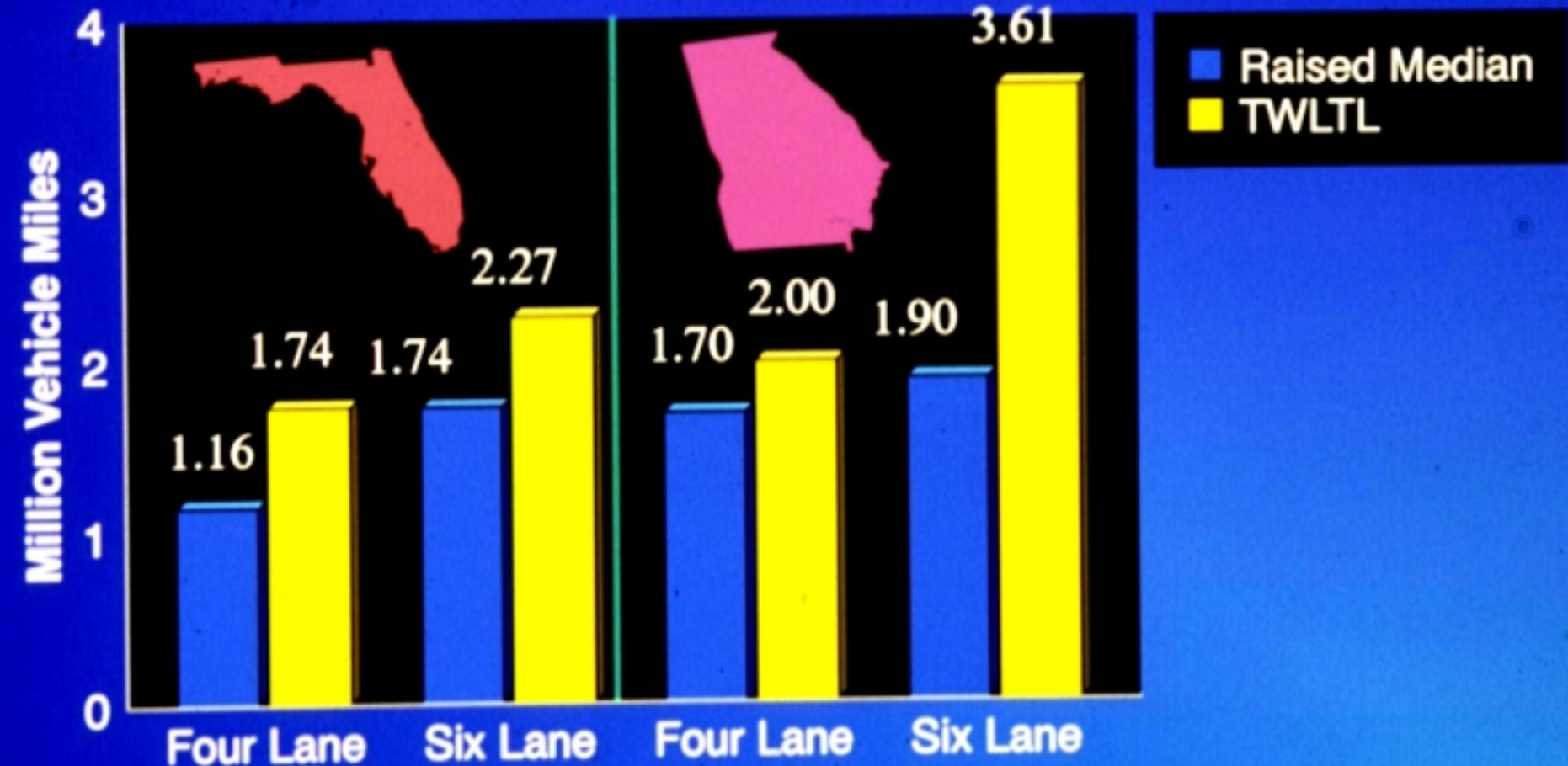
Florida Crash Study

Crash Rates for Median Treatments



Florida and Georgia Crash Studies

Injury Crash Rates for Median Treatments



Squires & Parsonson TRR 1239
Long, Gan, & Morrison 1993

Injury Accidents



TWLTL

Raised Median

SOURCE: Long, Gan, & Morrison 1993
Squires & Parsonson TRR 1239

Total Crashes, Injuries and Fatalities on Georgia's Divided Highways, 1989-92 and 1995-98

1989 - 1992

<u>Median Type</u>	<u>Miles Studied</u>	<u>Avg Veh Per Day</u>	<u>Crash Rate</u>	<u>Injury Rate</u>	<u>Fatality Rate</u>	<u>Ped FataIs Per 100 Mi.</u>
TWLTl	584	17,923	623	256	2.16	3.64
RM	946	11,500	367	164	1.89	1.45
% Difference, RM<TWLTl			-36	-36	-13	-60

1995 - 1998

TWLTl	839	18,500	561	269	1.66	3.13
RM	1,295	13,900	310	153	1.59	0.69
% Difference, RM<TWLTl			-45	-43	-4	-78

Mid-block Crashes, Injuries and Fatalities on Georgia's Divided Highways, 1989-92 and 1995-98

1989 - 1992

<u>Median Type</u>	<u>Miles Studied</u>	<u>Avg Veh Per Day</u>	<u>Crash Rate</u>	<u>Injury Rate</u>	<u>Fatality Rate</u>	<u>Ped Fatals Per 100 Mi.</u>
TWLT	584	17,923	180	76	1.17	2.65
RM	946	11,500	105	47	0.84	0.82
% Difference, RM<TWLT			-42	-38	-28	-69

1995 - 1998

TWLT	839	18,500	173	82	0.90	1.82
RM	1,295	13,900	95	43	0.67	0.52
% Difference, RM<TWLT			-45	-48	-26	-71

Only 17 Feet Between Curb Returns!



← Turtle Shells Didn't Work
and Were Discarded Here

Now It's Easy to Retrofit a Raised Median

Two gas stations now out of business



\$38,000 for a 1000-Foot Section



Now It's Easy to Retrofit a Raised Median

This gas station now
out of business



Three Gas Stations Have Closed Here



Comments or Questions?

Thank you for your attention.

Why don't we stay in touch?

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